

# Air Barrier Device for Protecting Liquid Fluids in Opened Container

## Abstract

A device inhibits oxidation of wine remaining in a bottle. A stopper and an inflatable bladder replace the cork. In a first embodiment, a wine duct formed in the stopper is open when the stopper is in an extended position and is closed when the stopper is retracted. Air displaces but does not contact the wine by filling the bladder through an air duct formed in the stopper. After decanting, air that seeps into the wine chamber is removed by forcing air into the bladder, using an external hand pump inserted into the air duct. When sufficient air is pumped into the bladder to raise the wine level to contact the stopper, the stopper is placed into its retracted position. In an additional embodiment, a valve controls opening and closing of the wine duct and the stopper has no extended and retracted position.